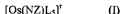


**Amendments to the Claims:**

This listing of claims will ~~replace~~ all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) A photographic ~~silver halide emulsion for use in photographic material~~<sup>[a]</sup> comprising a silver halide emulsion, said silver halide emulsion comprising a red ~~sensitising~~ sensitizing trinuclear merocyanine dye and an osmium dopant according to formula I

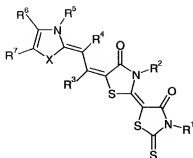


wherein      Z is sulfur or oxygen,  
                  L is a ligand and  
                  r is 0, -1, -2 or -3.

2. (currently amended) ~~★ The photographic silver halide emulsion as claimed in material of Claim 1, wherein the said osmium dopant is~~  
 $[\text{Os}(\text{NO})\text{Cl}_5]^{2-}$ .

3. (currently amended) ~~★ The photographic silver halide emulsion as claimed in material of Claim 1 or Claim 2, wherein the said red sensitising~~  
sensitizing dye ~~sensitises~~ sensitizes ~~said the~~ silver halide emulsion to radiation in the range 600-690nm.

4. (currently amended) ~~★ The photographic silver halide emulsion as claimed any one of the preceding claims~~ material of Claim 1, wherein the said red ~~sensitising~~ sensitizing trinuclear merocyanine dye is a compound according to formula II



II

wherein X is S or Se;

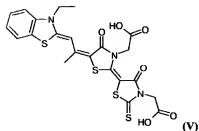
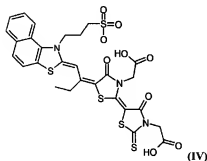
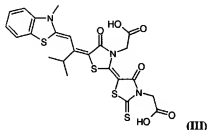
R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> are independently hydrogen[<sub>1</sub>] or an unsubstituted or substituted alkyl, substituted alkyl, alkenyl, substituted alkenyl, or aryl group, substituted aryl or an organic radical carrying a water solubilizing group and at least 2 two members of R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup>, but not both R<sup>3</sup> and R<sup>4</sup> together, are independently an organic radical carrying a water-solubilizing group; and

R<sup>6</sup> and R<sup>7</sup> each independently represent hydrogen, hydroxy, a halogen, an unsubstituted or substituted alkyl, group, a substituted alkyl group, an alkenyl, group, a substituted alkenyl group, an alkoxy, group, a substituted alkoxy group, an alkylthio, group, a substituted alkylthio group, an arylthio, group, a substituted arylthio group, an aryl, group, a substituted aryl group, an acyl, group, a substituted acyl group, an acyloxy, group, a substituted acyloxy group, an alkoxy carbonyl, group, a substituted alkoxy carbonyl group, an alkylsulphonyl, group, a substituted alkylsulphonyl group, a or carbamoyl group, a substituted carbamoyl group, or a sulphamoyl group[<sub>1</sub>] or R<sup>6</sup> and R<sup>7</sup> together represent the atoms necessary to complete an annellated carbocyclic ring system, which may bear one or more substituents, which may be the same or different and are chosen from the above substituents which R<sup>6</sup> and R<sup>7</sup> may independently represent.

5. (currently amended) ★ The photographic silver halide emulsion as claimed in material of Claim 4, wherein X is S, R<sup>1</sup> and R<sup>2</sup> are each independently an organic radical carrying a water-solubilizing group, R<sup>3</sup> is an unsubstituted or substituted alkyl group or a substituted alkyl group, R<sup>4</sup> is hydrogen, R<sup>5</sup> is an unsubstituted or substituted alkyl group, a substituted alkyl

group or an organic radical carrying a water-solubilizing group and R<sup>6</sup> and R<sup>7</sup> together represent the atoms necessary to complete an annellated carbocyclic ring system such as, for example, a benzene ring or a naphthalene ring system.

6. (currently amended) ~~A~~ The photographic silver halide emulsion as claimed in material of Claim 4, wherein the said red sensitizing trinuclear merocyanine dye is selected from comprises a compounds according to formulae of formula III, IV and or V



7. (currently amended) ~~A~~ The photographic silver halide emulsion as claimed in any one of Claims 4 to 6 material of Claim 4, wherein R<sup>3</sup> is an unsubstituted or substituted alkyl group having 2 two or more carbon atoms.

8-9. (cancelled)

10. (currently amended) ~~A silver halide emulsion as claimed in any one of the preceding claims~~ The photographic material of Claim 1, wherein the sensitising said sensitizing dye is present in ~~the~~ said silver halide emulsion in an amount of from 150 to 500 mg per mole equivalent of silver.

11. (cancelled)

12. (currently amended) ~~A silver halide emulsion as claimed in~~ The photographic material of Claim 11, wherein ~~the~~ said osmium dopant is present in ~~the~~ said silver halide emulsion in an amount of  $5 \times 10^{-8}$  to  $1 \times 10^{-6}$  moles per mole equivalent of silver.

13. (currently amended) ~~A silver halide emulsion as claimed in any one of the preceding claims, which~~ The photographic material of Claim 1, wherein said emulsion further comprises an iridium dopant.

14. (currently amended) ~~A silver halide emulsion as claimed in~~ The photographic material of Claim 13, wherein ~~the~~ said iridium dopant is  $[\text{IrCl}_6]^{2-}$ .

15. (cancelled)

16. (currently amended) ~~A silver halide emulsion as claimed in~~ The photographic material of Claim 15 13, wherein ~~the~~ said iridium dopant is present in ~~the~~ said silver halide emulsion in an amount of from  $5 \times 10^{-8}$  to  $1 \times 10^{-6}$  moles per mole equivalent of silver.

17. (cancelled)

18. (currently amended) ~~A silver halide emulsion as claimed in Claim 17, which~~ The photographic material of Claim 1, wherein said emulsion comprises from 60 to 80 mole% silver chloride.

19. (cancelled)

20. (currently amended) ~~★ The photographic material as claimed in of Claim 19 1, which is a high contrast graphic arts film.~~

21. (currently amended) ~~★ The photographic material as claimed in of Claim 19 1, which is a film for use in the preparation of a printed circuit board.~~

22. (cancelled)

23. (currently amended) A method of manufacturing a printed circuit board, said method comprising image-wise exposing an electronic circuit layout pattern onto a photographic material ~~as defined in Claim 21 comprising a silver halide emulsion, said silver halide emulsion comprising a red sensitizing trinuclear merocyanine dye and an osmium dopant according to formula I~~



wherein Z is sulfur or oxygen,

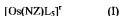
L is a ligand, and

R is 0, -1, -2, or -3,

developing the said exposed photographic material to produce a photomask, placing the said photomask in contact with a printed circuit board substrate, exposing the said printed circuit board substrate through the said mask and processing the said exposed printed circuit board substrate.

24. (currently amended) A method for reducing the extent of or preventing speed gain over time of a red-sensitive photographic silver halide emulsion, said method comprising incorporating into the said silver halide

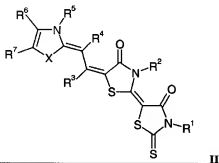
emulsion a trinuclear merocyanine dye and an osmium dopant according to formula I



wherein Z is sulfur or oxygen,  
L is a ligand, and  
r is 0, -1, -2 or -3.

25. (currently amended) ~~★ The method as claimed in of Claim 24,~~  
wherein the said osmium dopant is  $[\text{Os}(\text{NO})\text{Cl}_5]$ .

26. (currently amended) ~~★ The method as claimed in of Claim 24~~  
~~or Claim 25,~~ wherein the said silver halide emulsion comprises a trinuclear  
merocyanine dye ~~as defined in any one of Claims 4 to 9 of formula II~~



wherein X is S or Se;

R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> are independently hydrogen or an  
unsubstituted or substituted alkyl, alkenyl or aryl group, or an organic radical  
carrying a water solubilizing group and at least two members of R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and  
R<sup>5</sup>, but not both R<sup>3</sup> and R<sup>4</sup>, are independently an organic radical carrying a water-  
solubilizing group; and

R<sup>6</sup> and R<sup>7</sup> each independently represent hydrogen, hydroxy, a  
halogen, an unsubstituted or substituted alkyl, alkenyl, alkoxy, alkylthio, arylthio,  
aryl, acyl, acyloxy, alkoxycarbonyl, alkylsulphonyl or carbamoyl group, or a

sulphamoyl group; or  $R^6$  and  $R^7$  together represent the atoms necessary to complete an annellated carbocyclic ring system, which may bear one or more substituents, which may be the same or different and are chosen from the above substituents which  $R^6$  and  $R^7$  may independently represent.

27. (currently amended) ~~★ The method as claimed in any one of Claims 24 to 26,~~ which further comprises incorporating an iridium dopant into the said silver halide emulsion.

28. (currently amended) ~~★ The method as claimed in of Claim 27,~~ wherein ~~the said~~ iridium dopant is  $[\text{IrCl}_6]^{2-}$ .

29-32. (cancelled)